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Published in:
Nonprofit and Voluntary Sector Quarterly

Publication date:
2009

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Nonprofit and Voluntary Sector Quarterly 2009 38: 884 originally published online 21 October 2008
DOI: 10.1177/0899764008324516

Nonprofit and Voluntary Sector Quarterly
Volume 38 Number 5
October 2009 884-897

10.1177/0899764008324516
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The Relationship Between Confidence in Charitable Organizations and Volunteering Revisited

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Confidence in charitable organizations (charitable confidence) would seem to be an important prerequisite for philanthropic behavior. Previous research relying on cross-sectional data has suggested that volunteering promotes charitable confidence and vice versa. This research note, using new longitudinal panel data from the Netherlands, contradicts the suggestion generated by previous research. Volunteers indeed have more charitable confidence, but changes in one are not related to changes in the other. The authors identify generalized social trust and altruistic values as omitted variables that produce the previously observed relationship. The practical implication of this finding is that a decline in charitable confidence is unlikely to reduce volunteering. The theoretical implication is that volunteering is symbolic rather than instrumental.

Keywords: *confidence; volunteering; trust; altruism*

Concern over weak confidence in charitable organizations ("charitable confidence") is palpable and international in scope. In the United States, the Brookings Institution has documented a drop in charitable confidence lasting at least 2 years following destruction of the World Trade Center (Light, 2004).[1] The United Kingdom recently amended its Charities Act to add increasing public trust and charitable confidence in charities to the list of objectives of the Charities Commission (Opinion Leader Research, 2005). Concern is based on the assumptions that weak charitable confidence suppresses donations and volunteer support, if a way could be found to boost charitable confidence, the nonprofit sector would gain increased resources.

Authors' Note: Bekkers was supported by Grant 451-04-110 from the Netherlands Organization for Scientific Research.

But is the assumption valid, particularly in regard to volunteering? It is plausible that people with high levels of charitable confidence are more likely to volunteer because they are confident their efforts will not be fruitless. But this does not imply that a *reduction* in charitable confidence will cause incumbent volunteers to drop out. Unlike a monetary contribution, a donation of time provides a volunteer with valuable firsthand information about a particular charity. Insofar as the charity for which a person volunteers remains scandal free, there is little reason to believe that a loss of charitable confidence translates into reduced volunteering by incumbent volunteers—they think their favorite charity is above reproach. But even those who assist a scandal-plagued charity may remain loyal if they have had positive personal experiences—they lament the scandal, but want to "be part of the solution."

Most people in the United States volunteer because someone asks them (Bowman, 2004); thus, we observe even people with the lowest levels of charitable confidence (including zero) volunteering.[2] Information obtained through personal volunteer experience—assuming it is positive—may actually increase charitable confidence. It is an empirical question whether charitable confidence influences volunteering, whether the reverse is more probable, or whether omitted variables are causing the observed correlation. In earlier research, Bowman (2004) built a two-equation model to capture both the effect of charitable confidence on the probability of volunteering and the feedback (reverse) effect between volunteering and charitable confidence and tested it with cross-sectional data from the Independent Sector's 1996 Giving and Volunteering Survey. He found that the effect of volunteering on charitable confidence is stronger than the effect of charitable confidence on volunteering, suggesting that a problem of low charitable confidence will be self-correcting once people are recruited as volunteers.

However, Bowman (2004) acknowledged that he cannot give a definitive answer to the causality problem because unmeasured variables that influence both charitable confidence and volunteering may cause a bias in the estimated effect of volunteering on charitable confidence and recommended a longitudinal study. This article is the first to explore the longitudinal relationships with panel data from the Giving in the Netherlands Panel Survey (GINPS; Schuyt & Gouwenberg, 2005). The GINPS is a biannual study of charitable giving and volunteering. We use data from the first three waves (2002, 2004, and 2006). The GINPS data contain most of the variables included in the Independent Sector's 1996 Giving and Volunteering Survey. In addition, a wide variety of additional measures not available to Bowman—especially on attitudes and motivations for giving and volunteering—are included in the GINPS, which is helpful for testing for omitted variables. Descriptions of key variables are in the appendix to this article.

We proceed in three steps. First, we replicate Bowman's (2004) results with the Dutch data to verify similarity between the two populations. We find that Americans are more likely to be asked to volunteer whereas the Dutch are more trusting, but otherwise the populations and cross-sectional results are quite similar.[3] In the second

step, we analyze the Dutch panel data and find that changes in volunteering are not associated with changes in charitable confidence. This suggests that the higher level of charitable confidence among volunteers is because of selection of more confident individuals into volunteering, potentially on the basis of omitted variables. In the third step, we identify generalized trust and altruistic values as omitted variables and show that decisions to start or quit volunteering are partly rooted in trust and altruistic values.

Intertemporal Analysis of Covariance

An adequate estimate of the effect of volunteering on charitable confidence requires an analysis of how charitable confidence changes *after* people start or quit volunteering. If volunteering has a causal impact on charitable confidence, we should find that people have elevated charitable confidence after they have started volunteering and that people lose charitable confidence after they quit volunteering. Thus, it is changes in charitable confidence within individuals that we are after—not differences in charitable confidence between individuals who do or do not volunteer. Bowman (2004) could not obtain such an estimate because he lacked panel data. Panel data sets allow us to estimate the magnitude of changes within individuals over time by using an appropriate regression model (Greene, 2003). In the present research note, we use data from the first three waves of the GINPS to test the suggestion that charitable confidence promotes volunteering and vice versa. The GINPS includes measures of charitable confidence in Wave 2 (2004) and Wave 3 (2006).

Two types of regression models are available for panel data: random-effects and fixed-effects models. The random-effects model is an ordinary least squares (OLS) regression with pooled data, which treats both individual-specific and time-varying effects as random variables that are subsumed in the constant and random error terms. The fixed-effects model can be thought of as an ordinary regression model including a series of dummy variables for each individual that capture the individual effects (Halaby, 2004). The model assumes confounding variables (included and omitted) are constant over time and drop out of the analysis. Actual time-varying changes are subsumed into the constant and random error term.

Although researchers commonly use random-effects models rather than fixed-effects models, the latter are to be preferred in most cases (Halaby, 2004). The random-effects regression model yields biased estimates when the (fixed) individual effects are correlated with the explanatory variables. Hausman (1978) developed a statistical test for such correlations based on the logic that the coefficients obtained in random-effects models should be equivalent to the same coefficients obtained in a fixed-effect specification if in fact the (fixed) individual effects are not correlated with the explanatory variables. In our case, the Hausman test is significant ($\chi^2 = 12.99$, $p < .001$), indicating that that the effect of volunteering on charitable confidence is significantly different in the fixed-effects model than in the random-effects model.

Table 1
Analysis of Covariance, Random and Fixed Effects With Dutch Data, 2004 to 2006

Charitable Confidence	Coeff.	*SE*
Random-effects model		
Volunteering	0.182***	0.031
Constant	3.062***	0.022
Sigma_u	0.611	
Sigma_e	0.537	
rho	0.564	
Wald χ^2	33.85***	
Fixed-effects model		
Volunteering	–0.014	0.063
Constant	3.142***	0.029
Sigma_u	0.791	
Sigma_e	0.537	
rho	0.685	
F	0.05	
Number of observations	2,790	
Number of groups	2,079	

***$p < .001$.

Because the Hausman test is significant, the random-effects model yields biased estimates. Therefore, we use the fixed-effects model.

For illustrative purposes, the top panel of Table 1 shows the results of a random-effects model. The results show that charitable confidence is positively related to volunteering. This means that, on average, volunteers have a higher level of charitable confidence than do nonvolunteers. In cross-sectional data sets, and in the present random-effects model, changes within individuals and differences between individuals are confounded by design: Changes within individuals over time, as well as differences between individuals at the same point in time, are commingled sources of variance.

The bottom panel of Table 1 shows the results of the fixed-effects model that untangles these two effects. The effect of volunteering on charitable confidence is unexpectedly negative, but it is not significant. The discrepancy between the random- and fixed-effects estimates implies that volunteers as a group have more charitable confidence than do nonvolunteers but that changes in volunteering within respondents do not correlate with changes in their charitable confidence.

Omitted Variables

If changes in volunteering do not increase charitable confidence, then why do volunteers have more charitable confidence? To find out, we perform an OLS

regression of charitable confidence as measured on a 5-point scale in 2006 on a series of variables measured in 2004 and 2002. Model 1 includes a dummy variable indicating sustained volunteering activity between 2002 and 2006, a dummy variable indicating whether a respondent stopped volunteering between 2002 and 2006, and another dummy indicating whether a respondent quit volunteering between 2002 and 2006 (see Table 2).[4] In Model 2, we add measures of generalized social trust and altruistic values. Generalized social trust and altruistic values are likely to affect both charitable confidence and volunteering.[5]

Generalized social trust, commonly measured as agreement with the statement "in general, most people can be trusted" (Putnam, 2000; Rosenberg, 1956), reflects an optimistic worldview. "Trustors," as Uslaner (2002) calls them, are more likely to have positive beliefs about human nature. This leads them to have faith in the good intentions of others, facilitating the formation of social relationships and joining groups. Among members of groups, trusting people are more likely to comply with requests to volunteer. Trusting people also have more positive views of social institutions, including charitable organizations.

GINPS measures generalized social trust with two statements, originally from Rosenberg (1956): "In general, most people can be trusted" and "You can't be too careful in dealing with other people." Usually, these sentences are presented to respondents as two extreme poles of one survey item. To increase the reliability of the trust measure, the two statements were presented separately to the respondents. Response categories ranged from 1 (*completely disagree*) to 5 (*completely agree*). The second statement was reverse coded so that a higher score represents more trust. In the analyses below, we include the average score on the two trust items in the first wave of the GINPS (2002).

Altruistic values reflect the importance of helping others. Although not all volunteering can be called altruistic, helping others is an important motive for many volunteers (Clary et al., 1998). Those who have altruistic values are more likely to have positive views on charitable organizations that seek to help others and strive to create a better world. Charitable organizations seek to achieve goals endorsed by those with altruistic values. In the GINPS, altruistic values are measured with a Dutch translation of eight items on "benevolence" from Gordon's (1960) Interpersonal Values Scale (Lindeman, 1995). The items form a reliable scale ($\alpha = .82$).

Table 2 reports results of our regressions. In the first model, sustained volunteering has a significant ($p < .001$) positive effect on charitable confidence, indicating that sustained volunteers have more charitable confidence than do nonvolunteers. The coefficient on the variable indicating that a respondent quit volunteering between 2002 and 2006 has the expected negative sign, and the coefficient on the variable indicating that a respondent began volunteering between 2002 and 2006 is significantly positive. These results indicate that those who started to volunteer in the four preceding years had higher levels of charitable confidence in 2006 and those who quit volunteering had lower levels of charitable confidence.

Table 2
Effect of Additional Confounding Variables of Charitable confidence in 2006 (5-point scale)

	Model 1		Model 2		Model 3		Model 4	
	Coeff.	*SE*	Coeff.	*SE*	Coeff.	*SE*	Coeff.	*SE*
Sustained volunteering between 2002 and 2006[a]	0.333****	0.076	0.142*	0.079	0.092	0.063	–0.011	0.073
Quit between 2002 and 2006[a]	–0.195**	0.090	–0.093	0.086	–0.086	0.071	–0.053	0.074
Began between 2002 and 2006[a]	0.214***	0.082	0.113	0.080	0.069	0.066	0.010	0.069
Generalized social trust			0.216****	0.045	0.138****	0.038	0.122***	0.039
Altruistic values			0.318****	0.066	0.100*	0.054	0.075	0.056
Charitable confidence in 2004					0.589****	0.038	0.591****	0.040
Age 30 to 49							0.041	0.087
Age 50 to 64							–0.092	0.107
Age 65 and older							0.155	0.123
Gross household income (× €1,000)							0.001	0.001
Lower secondary education[b]							0.048	0.167
Middle secondary education[b]							0.135	0.174
Higher secondary education[b]							0.010	0.198
Lower tertiary education[b]							0.091	0.181
Middle tertiary education[b]							0.173	0.180
Higher tertiary education[b]							0.223	0.178
Level of education of parents							0.009	0.022
Working part-time[b]							–0.112	0.080
Not working[b]							–0.019	0.085
Religious socialization							–0.023	0.035
Roman Catholic[b]							0.027	0.081

(continued)

Table 2 (continued)

	Model 1		Model 2		Model 3		Model 4	
	Coeff.	*SE*	Coeff.	*SE*	Coeff.	*SE*	Coeff.	*SE*
Reformed Protestant[b]							0.179**	0.079
Re-reformed Protestant[b]							0.247**	0.097
Other religion[b]							0.115	0.133
Female[b]							–0.009	0.062
Married[b]							–0.020	0.063
Children present[b]							–0.045	0.068
Role model							–0.040	0.028
Town size							0.000	0.000
One membership							0.091	0.075
Two memberships							0.166*	0.089
Three memberships							0.180*	0.093
Four memberships							0.193	0.127
Five or more memberships							0.214	0.142
Constant							0.455*	0.265
Adjusted R^2	.027		.123		.382		.421	
N	692		692		692		692	

Note: Unless otherwise specified, explanatory variables were measured in 2002.
a. Dummy variable; reference group is people not volunteering in 2002 and 2004.
b. Dummy variable; yes = 1.
*$p < .10$. **$p < .05$. ***$p < .01$. ****$p < .001$.

However, when we control for generalized social trust and altruistic values at baseline (2002) in the second model, the coefficients on the three volunteering variables become much smaller and are no longer significant. This result indicates that preexisting differences in trust and altruistic values are responsible for the higher level of charitable confidence among sustained and new volunteers and the lower level of charitable confidence among those who quit volunteering. People who are more trusting and/or endorse helping others as an important goal in their lives are more likely to start volunteering, are less likely to quit, and are more likely to have charitable confidence. In addition, the GINPS includes several variables not available in the U.S. data that may be acting as omitted variables. New confounding variables in Table 2 are (a) town size, (b) gender, (c) marital status, and (d) dummies for religious affiliation (Roman Catholic, reformed Protestant, re-reformed Protestant, other affiliation). All of these variables are also measured in 2002.

In Model 3, we add charitable confidence in 2004 to take the stability in this variable into account, and in Model 4 we add an array of sociodemographic variables that have counterparts in the U.S. data that Bowman (2004) included in his study: age, education, income, employment status, level of education of the parents (mean for mother and father when respondent was aged 15), religious socialization (factor score for church attendance of mother and father when respondent was aged 15), a dummy variable indicating whether either parent had been a volunteer (when the respondent was aged 15), and dummy variables for memberships in voluntary associations. All of these confounding variables are measured in 2002.

Including the lagged charitable confidence variable in Model 3 reduces the relationships of charitable confidence with the volunteering variables, trust, and altruistic values. Charitable confidence in 2004 is strongly related to charitable confidence in 2006, implying that charitable confidence is a relatively stable characteristic of people. When the array of sociodemographic control variables is added (model 4), the influence of the volunteering variables, trust, and altruistic values is reduced further. Few regressors in this model have significant coefficients: (a) the lagged charitable confidence variable, (b) generalized social trust, (c) the two dummy variables for Protestant religious affiliation, and (d) dummy variables for memberships in voluntary associations.[6]

Effect of Charitable Confidence on Volunteering

The above results suggest that selection into volunteering of individuals who are more trusting and who have more altruistic values is generating the relationship between volunteering and charitable confidence observed in the random-effects model because trust and altruistic values are also sources of charitable confidence. Such selection may be the result of a higher probability of starting to volunteer among respondents with higher levels of trust and altruistic values and/or a lower probability of quitting volunteering among these respondents. To address these

Table 3
Effect of Omitted Variables on Starting and Quitting Volunteering

Between 2002 and 2004	Coeff.	*SE*	Between 2004 and 2006	Coeff.	*SE*
Started volunteering					
Generalized trust	0.018	0.022	Generalized trust	–0.005	0.028
Altruistic values	0.130****	0.029	Altruistic values	0.115***	0.038
			Confidence	0.003	0.026
Baseline probability (predicted)	0.245		Baseline probability (predicted)	0.183	
Log likelihood	–427.772		Log likelihood	–176.634	
n	780		*n*	374	
Quit volunteering					
Generalized trust	–0.046*	0.027	Generalized trust	–0.084**	0.034
Altruistic values	–0.082**	0.041	Altruistic values	–0.029	0.048
			Confidence	–0.012	0.033
Baseline probability (predicted)	0.245		Predicted baseline probability	0.213	
Log likelihood	–256.979		Log likelihood	–162.786	
n	466		*n*	318	

*$p < .10$. **$p < .05$. ***$p < .01$. ****$p < .001$.

possibilities, we conducted probit regression analyses of joining and quitting as a volunteer between two consecutive waves and trust and altruistic values in the first wave. Table 3 reports the marginal effects of a one standard deviation change in altruistic values, generalized trust, and charitable confidence and baseline probabilities of joining and quitting volunteer work.

Table 3 contains four panels: results pertaining to changes in volunteering between 2002 and 2004 (left panels) and between 2004 and 2006 (right panels) and results pertaining to joining (top panels) and quitting volunteering (bottom panels). In all panels, levels of generalized trust and intensity of altruistic values in 2002 are included as regressors; in the right panels, charitable confidence is also included as an additional predictor (it was unavailable in the 2002 wave).

The baseline probabilities of starting to volunteer are 0.245 between 2002 and 2004 and 0.183 between 2004 and 2006. These probabilities indicate that 24.5% and 18.3% of the nonvolunteers in 2002 and 2004 were volunteering in 2004 and 2006, respectively. Baseline probabilities of quitting volunteer work are 24.5% between 2002 and 2004 and 21.3% between 2004 and 2006. The top panels show that among those who did not volunteer in 2002 or 2004, individuals with higher altruistic value scores were more likely to start volunteering in the two consecutive years. Note that the effect is quite large: A one standard deviation increase in altruistic values is associated with a 13% increase in the probability of starting to volunteer. This means an increase of more than half the baseline probability. We do not observe effects of generalized trust on joining or an effect of charitable confidence.[7]

The bottom panels show that trust lowers the probability that a volunteer will quit between 2002 and 2004 and between 2004 and 2006. Relative to the baseline of 21.3%, the effect is not negligible in the latter period: A one standard deviation increase in trust in 2002 is associated with an 8.4% decrease in the probability of quitting volunteer work between 2004 and 2006. The effect is somewhat weaker in the former period. Stronger altruistic values also protected against quitting volunteer work between 2002 and 2004. The effect is not negligible: A one standard deviation increase in altruistic values is associated with a 8.2% decrease in the probability of quitting volunteer work. We find no effect of altruistic values on volunteer retention between 2004 and 2006. Again, the bottom-right panel shows that charitable confidence is not related to volunteer attachment.

Taken together, these results reveal that generalized trust and altruistic values are important characteristics of people in their decisions to start and quit volunteering. Individuals with higher altruistic value scores are more likely to join, and to a lesser extent they are also less likely to quit volunteering. More trusting individuals are less likely to quit volunteering.[8]

We caution that the effect of prior *levels* of altruistic values on *changes* in volunteering is not evidence that volunteering is motivated by altruism in the instrumental economic sense (Andreoni, 1990; Bowman, 2004). A proper test of altruistic motivation for volunteering requires observing an effect of changes in volunteering on changes in the *need* for volunteering. Examples of the latter are changing levels of involvement among colleague volunteers or changes in well-being of clients served by volunteers. Unfortunately, we do not have sufficient data for such a project.

Discussion and Conclusions

Previous estimates of the effect of volunteering on charitable confidence suggest reciprocal causation. However, these estimates are biased because error terms in the equations for volunteering and charitable confidence are significantly correlated, suggesting that omitted variables simultaneously influence both volunteering and charitable confidence. After we eliminate the omitted variable bias with a fixed-effects regression model, the effect of changes in volunteering on changes in charitable confidence disappears. The effects observed in Bowman's (2004) article can be traced to omitting altruistic values and generalized social trust. The latter finding is consistent with Uslaner's (2002) results (see above).

Bowman's analyses tested a rationalist economic model of volunteering based on impure altruism, developed earlier by Andreoni (1990). Bowman argued that impure altruists derive utility from consuming a combination of a public good (charity) and a private good (clubbiness), both created by volunteering; volunteering produces a "warm glow" that will reflect in enhanced charitable confidence. Our results call into

question this rationalist model of impure altruism. Does this mean that volunteering is not rational? Hardly, but it does require new theoretical underpinnings.

Let us suppose instead that volunteering is symbolic. Given asymmetric information about individuals in a social context, symbolic behavior is rational. Asymmetric information means that a seller (volunteer) knows more about a product (himself or herself) than do buyers (social contacts). Buyers have an incentive to be skeptical, whereas sellers have an incentive to exaggerate a product's good points and minimize its bad points. Therefore, people will not believe mere verbal representations. Words are cheap, as the saying goes, but because volunteering involves a cost to the volunteer (Cnaan, Handy, & Wadsworth, 1996) it constitutes a credible signal that says, "You can believe I'm a good person because I volunteer." In other words, if people express their self-image through volunteering, there is no reason to expect the charitable confidence of such a person to change as a result of a personal volunteering experience.

We began this article with the observation that concern over loss of charitable confidence is based on the assumption that a loss of charitable confidence causes donors and volunteers to withdraw their support from the sector across the board. And if a way could be found to boost charitable confidence, the charitable sector would gain increased volunteer (and other) resources. Our research shows that decreasing charitable confidence is unlikely to result in fewer volunteers and that it cannot be corrected by drawing people into volunteering. The basic fact is that volunteering does not affect charitable confidence very much. Altruistic values and generalized social trust are the key determinants of both, and these variables are fairly stable over time.

However, *individual* organizations should be concerned about a loss of charitable confidence in *them in particular* because a signal becomes less credible when an organization is criticized *externally* and is confronted with a loss of charitable confidence by the public at large. If signaling motivates people to volunteer, we would expect to find that a decrease in charitable confidence in the public at large in an organization would induce volunteers to spend less time working for it or even stopping altogether—whether or not their own generalized social trust changes. Anecdotal evidence from the Netherlands supports this hypothesis: When the Dutch Heart Association faced loss of public trust on publication of its director's salary of €170,000 in 2004, many volunteers for the association refused to go door to door to raise funds, and some quit altogether. We propose a confirmatory experiment. Such an experiment would require panel data on volunteers for several large organizations, together with measures of confidence in each organization. Another productive line of research would identify sources of organization-specific confidence that charitable organizations can themselves influence.

Appendix

Bowman (2004) derived his cross-section results from 1996 Giving and Volunteering data gathered by the Independent Sector, containing approximately 500 items collected from 2,700 randomly sampled U.S. respondents. The panel data from the Netherlands consist of three waves. Data were collected with a Web-based, computer-assisted self-interview, which drew respondents from a pool of approximately 70,000 individuals who regularly participate in poll surveys. Dutch fieldwork took place in May of 2002, 2004, and 2006.

The U.S. survey has no single question measuring charitable confidence. Instead, interviewers state, "I am going to read you a list of private charitable institutions in American society. Please tell me how much confidence you, yourself, have in each one–a great deal, quite a lot, some, or very little." Interviewers then recite 13 categories of nonprofit organizations. Bowman's charitable confidence variable is dichotomous: high charitable confidence respondents have a total score on these 13 questions above the sample mean, and low charitable confidence respondents have a total score below the mean. A missing datum on any one question causes the entire case to be discarded. Coding "don't know" as zero retains a case for incorporation into the composite charitable confidence variable.

The Giving in the Netherlands Panel Survey measures charitable confidence on a 1 to 5 scale (ranging from *none at all* to *very much*) with the question, as translated from the original Dutch, "How much confidence do you have in charities?" In the 2006 survey, 4.1% replied *none*, 15.2% replied *little*, 38.0% replied *moderate*, 41.9% replied *much*, and only 0.8% replied *very much*.

The U.S. survey measures trust with the question, "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" where "most people can be trusted" is coded as 1 and "you can't be too careful in dealing with people" is coded as 0 ("other," "depends," and "don't know" are also coded 0). In the Dutch data, the two statements were evaluated separately on a 1 to 5 scale (ranging from *disagree completely* to *agree completely*). The correlation between the two statements is .421.

In the U.S. data, the volunteering question is, "In which, if any, of the areas listed on this card have you done some volunteer work in the past twelve months?" Interviewers then show respondents 15 types of nonprofit organizations. A positive response to one or more of these (except political, work related, and informal) is coded 1. A negative response to all is coded 0. A "don't know" or "refused" is treated as a missing observation. In the Dutch data, volunteering is measured in an extensive Method-Area module. We consider only respondents who mention a concrete activity carried out without monetary compensation for a specific voluntary association in the 12 months prior to the survey. Of the respondents, 37.2% report monthly volunteering activities.

Notes

1. Brookings measured charitable confidence in July and December 2001, in May, August, and September 2002, in August and September 2003, and in January and August 2004. All data, except July 2001, were compiled by Princeton Survey Research Associates. July 2001 data are from Independent Sector. Since 1990, the Independent Sector's biennial surveys of giving and volunteering have shown "remarkable consistency in public trust in charitable organizations" (Toppe & Kirsch, 2002, p. 2). The percentage of people believing that charities are "honest and ethical in their use of funds" ranged from a

low of 60.0% in 1996 to a high of 73.4% in February 2002. Just before Brookings began collecting data, charitable confidence had been at an all-time high, so Brookings may have used an aberrant measurement as its baseline. Thus, concern over low levels of charitable confidence may be unfounded, but there is no denying that such concern exists.

2. Volunteers are 10% of the quintile with the least charitable confidence. They are 27% of the next quintile, 46% of the next quintile, 55% of the next, and 50% of the quintile with the highest levels of charitable confidence (Bowman, 2004). However, the usual caveat about correlation not implying causality applies. The observed positive correlation is based on population averages, but the question is, what is the effect of a change in charitable confidence in a single individual on a change in the probability that that individual volunteers and vice versa?

3. We do not report the results here, but they are available on request.

4. Analyses of confidence on a 3-point scale and a dichotomous confidence variable revealed similar results. The results are available on request.

5. Previous research has indicated that altruistic values are a strong predictor of charitable giving (Bekkers, 2002) and volunteering (Unger, 1991). All data are measured in 2002.

6. Of the respondents who participated in the 2006 wave (N = 1,474), 48% (n = 703) also participated in the 2002 wave. Panel attrition was selective with respect to age, income, having children, and town size. Respondents who were younger than 30, had lower incomes, did not have children, and lived in urban areas were less likely to continue participation in the survey. A Heckman selection model that takes selective attrition with respect to these variables into account reveals nearly identical results. (Results are available on request.) And a further analysis (also available on request) of charitable confidence in 2004 reveals similar results with respect to the volunteering variables. Because of the absence of a lagged charitable confidence variable, this analysis revealed somewhat stronger relationships of charitable confidence with altruistic values, age, education, and working status and somewhat weaker relationships with religious affiliation.

7. The effect of trust on joining is mitigated by selective panel attrition. Low-trust respondents were more likely to leave the panel between 2004 and 2006; altruistic values and confidence were not related to panel attrition. A two-stage probit model with selection for trust reveals a significantly positive effect of trust in 2004 (coefficient = 0.128, SE = 0.063, $p < .041$) on joining in the two consecutive years.

8. In additional analyses, we investigated the effects of sociodemographic controls and memberships that were also included in Table 2. We find that the effect of altruistic values on joining is robust with respect to the addition of sociodemographic controls but becomes weaker when memberships are added to the model. This suggests that people with stronger altruistic values are more likely to hold memberships and are therefore more likely to start volunteering. Likewise, the effect of trust is relatively robust with respect to the addition of sociodemographic variables but is reduced when membership variables are added. This suggests that more trusting people are less likely to quit volunteering because they are more likely to be members of organizations.

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